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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,054	03/01/2002	Michael Fripp	2001-IP-004288	6736

7590 12/06/2004

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EXAMINER

STEPHENSON, DANIEL P

ART UNIT PAPER NUMBER

3672

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,054

Applicant(s)

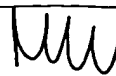
FRIPP ET AL.

Examiner

Daniel P Stephenson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 17-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☒ Claim(s) 1-55 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/15/02, 7/7/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species I in the reply filed on 11/12/04 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5, 8-10, 12, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Goodson, Jr. et al. '470. Goodson Jr. et al. '470 (Fig. 2) discloses a fluid control device for use in a string of tools in a borehole in which there is a housing (50), a piston (60), a MR fluid (66) and a magnetic assembly (68). The MR fluid is disposed within the housing and can be made to block flow through use of the magnetic assembly. The magnetic assembly is an electromagnet that generates a magnetic field when powered. When the MR fluid blocks flow it impedes movement of the piston. Total blockage of the flow stops the piston while partial blockage due to the fluid will slow movement of the piston, as is the nature of MR fluids. The release of a valve (56) is stopped while the MR fluid blocks the housing which in turn blocks the piston.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

~~(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.~~

5. Claims 4, 6, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodson, Jr. et al. '470 in view of Yezerky et al. Goodson, Jr. et al. '470 shows all the limitations of the claimed invention, except, it does not disclose that there is both a permanent magnet and an electromagnet in the magnetic assembly nor does it disclose that in the unpowered state there is a magnetic field. Yezerky et al. (Fig 2, col. 3 lines 25-41) discloses a control for an MR fluid in which there is both a permanent magnet and an electromagnet. The permanent magnet supplies a magnetic force to solidify the MR fluid in the unpowered state. The electromagnet, when activated, will counter the magnetic force of the permanent magnet and allow the MR fluid to become fluid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the activation system of Yezerky et al. with the apparatus of Goodson, Jr. et al. '470. This would be done so that power would not have to constantly be supplied downhole and a current would only be required when it was desired to activate the apparatus.

6. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burleson et al. in view of Yezerky et al. Burleson et al. (Fig. 4A and 4B, col. 8 line 54- col. 9 line 49) discloses a downhole tool in which there is a housing (94), a piston (104), and a transitional material (122). The transitional material is disposed within the housing and can be made to

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block flow. When the transitional material blocks flow it impedes movement of the piston. Total blockage of the flow stops the piston while partial blockage due to the fluid will slow movement of the piston, as is the nature of transitional materials. Burleson et al. does not disclose that the transitional fluid is an MR fluid nor does it disclose a magnetic assembly to activate the MR fluid. Yezerky et al. (Fig 2, col. 3 lines 25-41) discloses a control for an MR fluid in which there is both a permanent magnet and an electromagnet. The permanent magnet supplies a magnetic force to solidify the MR fluid in the unpowered state. The electromagnet, when activated, will counter the magnetic force of the permanent magnet and allow the MR fluid to become fluid. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the activation system and MR fluid of Yezerky et al. with the apparatus of Burleson et al. This would be done to allow activation of the apparatus from the top of the borehole with a more reliable system that is electrically based as opposed to temperature based.

Allowable Subject Matter

7. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hardt, Hare, Sr., York et al., Gordaninejad et al. and the UK document '567 to Ferrier all show similar elements to those of the present invention.

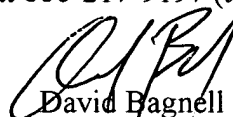
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P Stephenson whose telephone number is (703) 605-4969.

The examiner can normally be reached on 8:30 - 5:00 M-F.

~~If attempts to reach the examiner by telephone are unsuccessful, the examiner's~~
supervisor, David J. Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Bagnell
Supervisory Patent Examiner
Art Unit 3672

DPS *JS*